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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/583,071

06/15/2006

Takayuki Takeuchi

10873.1909USWO

9144

53148

7590

02/04/2009

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EXAMINER

BREVAL, ELMITO

ART UNIT

PAPER NUMBER

2889

MAIL DATE

DELIVERY MODE

02/04/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/583,071	Applicant(s) TAKEUCHI ET AL.	
	Examiner ELMITO BREVAL	Art Unit 2889	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 October 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 October 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The amendment filed on 10/08/2008 has been entered.

Claims 1, 3-9 are pending.

The previous rejections have been withdrawn.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-6, 8, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo et al., (JP: 2003-316292) of record by the applicant in view of Hayashi et al (US. Pub: 2004/0065877) of record by the applicant. The examiner is using the English machine translation of the foreign reference.

Regarding claim 1, Kondo ('292) teaches (in a least fig. 3; [0021]-[0024]; abstract) a display apparatus in which a pixel is driven by using a thin film transistor including an organic material in at least an active layer, wherein the thin film transistor unit and a display element unit are laminated on the substrate (6), a pixel electrode (3) formed on the substrate (6) also functions as a drain electrode of the thin film transistor; a source electrode (1) of the thin film transistor is formed to so as to be opposed to the pixel electrode in a thickness direction with the active layer (2) interposed there between.

However, Kondo ('292) does not teach the pixel electrode has an area larger than that of the source electrode so as to cover the active layer on the source electrode substantially entirely and, the pixel electrode formed on the substrate side of the display element unit.

Further regarding claim 1, Hayashi ('877) in the same field of endeavor teaches a display device comprised of, in part, a pixel electrode (203 of fig. 48; i.e. the lower electrode) that has an area larger than of the source electrode (201 of fig. 48) in order to entirely cover the light emitting material against moisture and other gas, but silent about the pixel electrode formed on the substrate side of the display unit.

However, forming the pixel electrode in the substrate side is within the knowledge of one ordinary skill in the art for the purpose of protecting the device against moisture and to improve the luminance efficiency of the device. Furthermore, both Kondo and Hayashi do not disclose any burden of the reversal order of the lamination of the display element parts and the thin film-transistor parts. Finally, it has been held that a mere reversal of essential working parts of a device involves only routine skill in the art. In re Einstein, 8 USPQ 167.

Hence, it would have been obvious to one of ordinary skill in the art at the time the invention was made to form the pixel electrode on the substrate side of the display element unit and to use the larger pixel electrode of Hayashi into the device of Kondo in order to entirely cover the light emitting material against moisture and other gas.

Regarding claim 3, Hayashi ('877) teaches (in at least fig. 9; [0081]) the source electrode has a smaller than the pixel electrode (4a; thus, the examiner interprets the

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source electrode (i.e. the lower electrode) to have an area not less than 25% the size of the pixel electrode)

Regarding claim 4, Kondo/Hayashi disclose the conductive film (i.e. the transparent electrode) for suppressing gas permeation of gas and moisture is formed outside of the display element unit.

Regarding claim 5, Hayashi ('877) teaches the conductive film (4a of fig. 9) is formed so as to cover an entire surface of the display region. The reason for combining is the same as for claim 1.

Regarding claim 6, Kondo ('292) teaches the substrate (1 of fig. 3) suppresses gas permeation of oxygen and moisture.

Regarding claim 8, Kondo ('292) teaches ([0019]) the display element unit is an organic electroluminescent element.

Regarding claim 9, Kondo ('292) teaches ([0028]) the active layer unit of the thin film transistor includes an organic semiconductor layer.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo et al., (JP: 2003-316292) of record by the applicant in view of Hayashi et al (US. Pub: 2004/0065877) of record by the applicant and further view of Young (US. Pub: 2002/0139981).The examiner is using the English machine translation of the foreign reference.

Regarding claim 7, Kondo/Hayashi teach all the claimed limitations except for the substrate is flexible.

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Further regarding claim 7, Young ('981) teaches a display device comprised of, a flexible substrate (abstract) in order to reduce the risk of damage upon bending of the device.

Hence, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the flexible substrate of Young into the device of Kondo/Hayashi in order to reduce the risk of damage upon bending of the device.

Response to Arguments

The applicant has made two arguments: 1) Kondo fails to teach a thin film transistor unit and a display element unit that are laminated on a substrate in the order where the pixel electrode is formed on the substrate side; 2) Hayashi does not disclose the pixel electrode has an area larger than that of the source electrode so as to cover the active area layer of the thin film transistor on the source electrode substantially entirely.

In response to the first argument: the examiner agrees that Kondo does not teach the pixel electrode is formed on the substrate side. However, forming the pixel electrode on the substrate side is within the knowledge of one of ordinary skill in the art in order to protect device and also to improve the luminance efficiency of the device.

Regarding the second argument, Hayashi teaches (in at least fig. 48) the pixel electrode (203; i.e. the lower electrode) has an area larger than that of the source electrode so as to cover the active area layer of the thin film transistor. However, due to citation error on the previous rejections, the examiner has withdrawn the previous rejections.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ELMITO BREVAL whose telephone number is (571)270-3099. The examiner can normally be reached on M-F (8:30 AM-5:00 Pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Toan Ton can be reached on (571)-272-2303. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

February 1, 2009
/Elmito Breval/
Examiner, Art Unit 2889

/Joseph L. Williams/
Primary Examiner, Art Unit 2889